
vicotar® Telecentric Lens - TO88/16.0-130-V-BW

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|---------------------------|--|
| Short description: | Telecentric Lens, C-Mount, Sensor opt. 1", aperture F6 - F22, blue |
| Order number: | 2-05-813 |
| EAN: | 4251692621646 |
| Actual Notice: | Also available with fixed aperture on request. (F-numbers in the range as for adjustable aperture) |



Characteristics

- telecentric measurement objective with object-sided telecentric beam path
 - color corrected for the visible spectral range and near infrared
 - color correction extended deep into the blue spectral range
 - very well suited for blue LEDs including "Deep Blue" LEDs
 - thus especially suitable for white LEDs, as these have a strong blue light component
 - high resolution, low lateral chromatic aberration, low distortion, low telecentric error
 - adjustable aperture with identification of the aperture numbers, arrestable
 - robust industrial design
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Technical data

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| Image scale | 0.182 |
| Spectral range | 400 nm - 900 nm |
| Working distance | 130 mm |
| Camera distance (object-camera flange) | 354.9 mm |
| Object field diagonal (max.) | 88 mm |
| Sensor format (opt.) | 1" |
| Image field diagonal (max.) | 16 mm |
| Suitable for camera resolution | 39.2 MPixel |
| Recommended pixel size | 1.77 μm |
| Aperture | variable (F8 - F22) |
| Lens mount | C-Mount |
| Filter thread, object-side | M100 x 1 |
| Filter thread, camera-side | M20.5 x 0.5 |
| Weight | 1110 g |
| Usable object field with: | |
| • 1" sensor (12.8 x 9.6 mm ²) | 70.3 mm x 52.7 mm |
| • 2/3" sensor (8.8 x 6.6 mm ²) | 48.4 mm x 36.3 mm |
| • 1/1.8" sensor (7.1 x 5.4 mm ²) | 39 mm x 29.7 mm |
| • 1/2" sensor (6.4 x 4.8 mm ²) | 35.2 mm x 26.4 mm |

Notices

The lightings combination products shown are a selection. Depending on the application, other colors and light source types can also be used.

Can be combined with

| Order number | Title | Description |
|-----------------------------------|-----------------------|---|
| <i>TZB95-UDC-a Serie</i> | | |
| 1-10-951 | TZB95-B470/UDC/-a | telecentric light, blue, If diameter: 95 mm, flashable by flash controller |
| 1-10-952 | TZB95-W5K7/UDC/-a | telecentric light, white, If diameter: 95 mm, flashable by flash controller |
| 1-10-953 | TZB95-IR880/UDC/-a | telecentric light, IR850, If diameter: 95 mm, flashable by flash controller |
| 1-10-950 | TZB95-R625/UDC/-a | telecentric light, red, If diameter: 95 mm, flashable by flash controller |
| 1-10-954 | TZB95-G525/UDC/-a | telecentric light, green, If diameter: 95 mm, flashable by flash controller |
| <i>TZB95 series</i> | | |
| 1-10-383 | TZB95-B470-24V | telecentric light, blue, If diameter: 95 mm, static, cable open-ended |
| 1-10-382 | TZB95-W5K7-24V | telecentric light, white, If diameter: 95 mm, static, cable open-ended |
| 1-10-381 | TZB95-IR880-24V | telecentric light, IR850, If diameter: 95 mm, static, cable open-ended |
| 1-10-380 | TZB95-R625-24V | telecentric light, red, If diameter: 95 mm, static, cable open-ended |
| 1-10-384 | TZB95-G525-24V | telecentric light, green, If diameter: 95 mm, static, cable open-ended |
| <i>R-CLR-100-SL series</i> | | |
| 1-33-012 | R-CLR-100x73-B470-SL | ring light, blue, coaxial, If diameter: 73/100 mm, smart light technology |
| <i>RK3652-24V series</i> | | |
| 1-29-702 | RK3652-B470-24V/C | ring light, blue, coaxial, If diameter: 73/100 mm, controlled, pot.: 0-10V, |
| <i>R-CLR-132-SL series</i> | | |
| 1-33-017 | R-CLR-132x104-B470-SL | ring light, blue, coaxial, If diameter: 104/132 mm, smart light technology |
| <i>RK5268-24V series</i> | | |

| Order number | Title | Description |
|--------------|-------------------|--|
| 1-29-802 | RK5268-B470-24V/C | ring light, blue, coaxial, If diameter: 104/132 mm, controlled, pot.: 0-10V, |

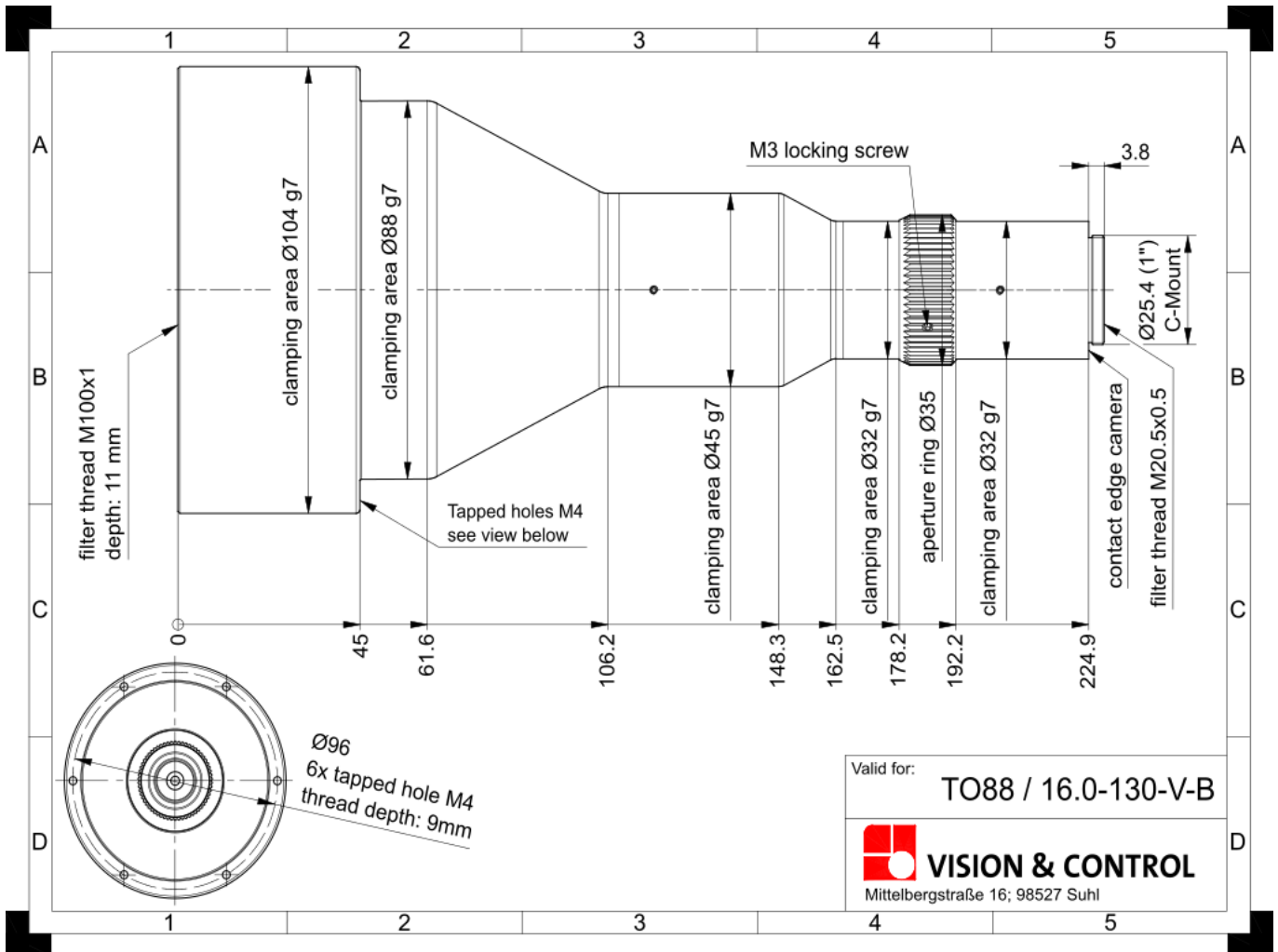
Accessories for Telecentric Lenses - TO88/16.0-130-V-BW

| Order number | Title | Description |
|-------------------------------|------------------------------|--|
| Adjustment Aids | | |
| 5-10-112 | Adjustment aid 10 | for easy adjustment to 10 mm depth of field, for image scale 0.5 - 0.2 |
| Lens mount | | |
| 2-91-331 | Mounting angle | Holder for telecentric lenses and lightings with with threaded hole M5 |
| 2-91-332 | Mounting angle SH | Holder for telecentric lenses and lightings with with slotted hole for M4-M6 |
| 2-91-333 | Mounting plate SH | Holder for telecentric lenses and lightings with with slotted hole for M4-M6 |
| 2-91-330 | Lens Holder d45 wide | Holder for telecentric lenses and lightings with d = 45 mm, width = 32 mm |
| 2-91-334 | Mounting Bracket TO88 | Holder for telecentric lenses of the series TO88 with threaded hole M5 |
| Extension tubes | | |
| 2-90-415 | Extension ring 0.5 mm | 26 x 31 x 0.5 reduces the minimum object distance (MOD) |
| 2-90-416 | Extension ring 1.0 mm | 26 x 31 x 1.0 reduces the minimum object distance (MOD) |
| 2-90-419 | Extension ring 0.1 mm | 25.5 x 29 x 0.1 reduces the minimum object distance (MOD) |
| 2-90-420 | Extension ring 0.2 mm | 25.5 x 29 x 0.2 reduces the minimum object distance (MOD) |
| Thread adapter c-mount | | |
| 5-00-011 | Thread adapter C-Mount-M42 | Adapter for mounting of lenses with C-mount on cameras with M42x1 mount |
| 2-90-414 | CS to C-mount adapter 5.0 mm | for connecting C-mount lenses with CS-mount cameras, length: 5 mm |

| Order number | Title | Description |
|---|-----------------------------|--|
| <i>Daylight blocking filter</i> | | |
| 2-91-131 | IR filter M20.5x0.5 | long-pass filter from 830 nm, daylight absorbing filter, filter thread M20.5x0.5 |
| 2-91-136 | IR filter M100x1 | long-pass filter from 830 nm, daylight absorbing filter, filter thread M100x1 |
| <i>Polarising filters</i> | | |
| 2-91-148 | Pole filter M105x1 | linear polarizing filter, range 420 nm - 780 nm, filter thread M105x1 |
| <i>Colour filter blue</i> | | |
| 2-91-292 | Colour filter blue M100x1 | band-pass filter, range 350 nm - 600 nm, filter thread M100x1 |
| <i>UV Cut-Off Filter</i> | | |
| 2-91-209 | UV blocking filter M100x1 | long-pass filter from 350 nm, usable as protective glass, filter thread M100x1 |
| <i>Colour filter red</i> | | |
| 2-91-259 | Colour filter red M20.5x0.5 | long-pass filter from 630 nm, red, filter thread M20.5x0.5 |
| 2-91-264 | Colour filter red M100x1 | long-pass filter from 630 nm, red, filter thread M100x1 |
| <i>Colour filter green</i> | | |
| 2-91-305 | Colour filter green M100x1 | band-pass filter, range 430 nm - 620 nm, filter thread M100x1 |
| <i>Colour filter yellow</i> | | |
| 2-91-281 | Colour filter yellow M100x1 | long-pass filter from 530 nm, yellow, filter thread M100x1 |
| <i>Filter adapter</i> | | |
| 2-91-338 | Filter adapter M100-M105 | step-up ring for use of a M105x1 filter on a M100x1 filter thread |
| <i>Adapters for attaching lights to lenses</i> | | |
| 1-29-774 | Adapter ring d73 - M100x1 | for R-CLR-100x73 und RK3652, for attachment to lenses with filter thread M100x1 |

| Order number | Title | Description |
|--------------------------------------|----------------------------|--|
| 1-29-872 | Adapter ring d104 - M100x1 | for R-CLR-132x104 and RK5268, for attachment to lenses with filter thread M100x1 |
| <i>Beam splitter STE60x60</i> | | |
| 1-20-050 | STE60x60-VIS | Beam splitter unit for coaxial light system, optimized for 450-700 nm |
| 1-20-025 | Adapter STE60x60 - TZ0104 | Attachment of the STE60x60 to telecentric lenses and lightings with d= 104 mm |

Drawings



Dimensional drawing in mm